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For the attention of: I Viegas da Cruz/C Cametz

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Your ref:
Our ref: RJP/JFB/Y2060
Date: 25 February 2005

Dear Sirs

Patent Application: PCT/GB2003/004850
Country: PCT (Patent Co-operation Treaty)
Applicant: Boots Healthcare International Limited
Title: IMPROVEMENTS IN AND RELATING TO LIQUID DISPENSING

We write in response to the telephone discussion between the examiner C Cametz and the undersigned representative, on 16 February 2005. It was mentioned then, and confirmed in the examiner's informal note of the telephone conversation, that if we wanted new claims to be considered in the IPER, they should be filed within two weeks.

First of all we would like to thank the examiner for her very constructive attitude.

We file herewith revised claims 1 to 12, to replace claims 1 to 11 at present on file. To assist the examiner we also enclose the previous claims, with the respective amendments made in hand-writing.

The examiner explained the view that the claims filed with our letter of 22 October 2004 were possibly not distinguished from D1: could the end of the projection 18 at the end of the syringe of D1 not be called the nose? Since it lies in one plane, could it not be called a flat nose? The examiner's proposal to overcome this possible inadvertent anticipation is to define, in words in claim 1, what it meant by a flat-nosed syringe. Indeed, the examiner made a very helpful suggestion in this regard.

We believe that the term "flat-nosed syringe" has a meaning in the art, which would not include the syringes of D1. In other words, the syringes of D1 would not be regarded as "flat-nosed syringes" by the skilled person.

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Having said that, however, we can see the sense in introducing a definition into claim 1 which removes any doubt, and we have done this.

Amended claim 1 adopts the wording suggested by the examiner, with the sole exception that it does not refer to a circular face. The shape of the face clearly does not matter in terms of operation of the apparatus of the invention. If the end face, along with the cross-section of the barrel and syringe, were elliptical, or hexagonal, the apparatus would work the same. The specification as filed makes this very clear. Claim 1 as filed did not specify any shape. All references to "circular" or "cylindrical" are in the context of preferred statements, or examples – for example page 5 line 26-27; page 6 line 16-17; page 8 lines 10-15; and the specific example on pages 13-18. We believe that the amendments we have made to be fairly drawn from the specification as filed; we do not believe we are required to specify that the end face is circular.

The amendment to claim 1, based on the examiner's proposal, draws part of its wording from the specific example. Although we consider it to be a permissible amendment, in such cases patent attorneys are always mindful that it is open to opponents to contest such amendments. If such an amendment was, in fact, wrongly made there may be a difficulty in removing it after grant, due to a prohibition on claim broadening. A patent holder could be left in an impossible position.

Therefore it is in the applicant's interest to look for an alternative amendment which distinguishes from D1, if possible not drawn in part from the example. We believe we have found one which is drawn from the claims as filed. This is new claim 2, an independent claim. This adds to the previous claim 1 the feature that the distal end of the syringe barrel is in abutment with the inward step. This wording was in claim 1 as filed. It disappeared from claim 1 in the October 2004 amendment (claim 9 as filed being the basis for that claim, and not containing this "abutment" feature). We do not believe that D1 discloses this feature. In the D1 proposal the distal end of the syringe barrel would be the end of the protrusion. However this is not in abutment with the inward step – it extends past it, and into/through the opening in it. This claim further employs a definition given on page 4 lines 19-20, that no part of the distal end extends beyond the bore. If the projection of D1 is to be regarded as the distal end of the D1 syringe, then clearly it does extend beyond the bore in the sleeve.

The other claims have simply been re-numbered, apart from claim 4, in which we have made a clarifying amendment, following the examiner's comment that the previous wording was not clear.

As before, we leave corresponding amendments to the description to the national phase.

Please note that we are not abandoning the subject matter of previous claim 1; during the national phase some patent offices may consider that a "flat-nosed syringe" is a form of art which is clear, and sufficient in itself to be clear of inadvertent anticipation by D1.

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We ask the examiner to issue the IPER on the basis of the enclosed claims 1-12, having regard to our comments.

Yours faithfully
APPLEYARD LEES

R J Pidgeon

Enc: Replacement claims 1-12
Handwritten version
Form 1038 (x 3)

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Claims

1. A liquid dispensing apparatus comprising a bottle, a bottle neck liner and a flat-nosed syringe having a plunger and a barrel, the barrel terminating at its distal end in a generally flat face having a diameter corresponding to the diameter of the syringe barrel and being perpendicular to the longitudinal axis of the barrel, the bottle having a bottle neck in which is located the bottle neck liner such that liquid cannot flow between the bottle neck liner and the bottle neck, the bottle neck liner comprising a sleeve comprising an inward step located within the bottle neck, an aperture being defined inwardly of the inward step, wherein the sleeve is dimensioned such that when the syringe barrel is inserted into the sleeve the inward step prevents the syringe barrel from protruding past the step and liquid cannot flow between the sleeve and the barrel, but can leave the bottle only via the aperture and thence the syringe.

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2. A liquid dispensing apparatus comprising a bottle, a bottle neck liner and a flat-nosed syringe having a plunger and a barrel, the bottle having a bottle neck in which is located the bottle neck liner such that liquid cannot flow between the bottle neck liner and the bottle neck, the bottle neck liner comprising a sleeve defining a bore having an inward step located within the bottle neck, an aperture being defined inwardly of the inward step, wherein the sleeve is dimensioned such that when the syringe barrel is inserted into the sleeve, the bore sealingly accommodates the distal end region of the syringe barrel with the distal end region in abutment with the inward step, wherein no part of the distal end extends

beyond the bore, and wherein liquid cannot flow between the sleeve and the barrel, but can leave the bottle only via the aperture and thence the syringe.

5 3. A liquid dispensing apparatus as claimed in claim 1 or 2, wherein the aperture is pre-formed and permanently open.

4. A liquid dispensing apparatus as claimed in any preceding claim, wherein the bottle neck "liner" has a cylindrical body to engage sealingly inside the bottle neck, wherein the sleeve is spaced from the body, wherein the body and sleeve are connected together by a web of material only at one end of the body and of the sleeve; and wherein at the other end of the sleeve the inward step is located.

5. A liquid dispensing apparatus as claimed in any preceding claim, wherein the sleeve comprises a resilient material.

6. A liquid dispensing apparatus as claimed in any preceding claim, wherein the inward step is a substantially annular inward step.

25 7. A liquid dispensing apparatus as claimed in any preceding claim, wherein the inward step is located in the region of one end of the sleeve.

30 8. A liquid dispensing apparatus as claimed in any preceding claim, wherein the liner comprises an outwardly protruding flange extending around at least a portion of

an end of the liner and abutting the rim of the bottle neck into which the liner is inserted.

9. A liquid dispensing apparatus as claimed in any preceding claim, wherein the bottle contains liquid medicine.

10. A liquid dispensing apparatus as claimed in any preceding claim, wherein the bottle includes a closure member which can be secured over the bottle neck.

11. A method of dispensing liquid from liquid dispensing apparatus as claimed in any preceding claim, the method comprising the steps of:

15 (a) inserting the barrel of the syringe into the bottle neck of the bottle until the distal end of the barrel abuts the inward step;

20 (b) positioning the bottle such that liquid within the bottle contacts the aperture;

(c) effecting outward movement of a plunger of the syringe to withdraw liquid from the bottle into the barrel;

25 (d) positioning the bottle such that liquid within the bottle no longer contacts the aperture;

(e) removing the barrel from the bottle neck; and

30 (f) effecting inward movement of the syringe plunger to dispense liquid from the syringe barrel.

12. In combination, a flat-nosed syringe and a bottle neck liner, able to produce, with a bottle, a liquid dispensing apparatus as claimed in any of claims 1 to 10.

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Claims

(A) the barrel terminating at its distal end in a generally flat face having a diameter corresponding to the diameter of the syringe barrel bore

being perpendicular to the longitudinal axis of the bore

1. A liquid dispensing apparatus comprising a bottle, a bottle neck liner and a flat-nosed syringe having a plunger and a barrel, the bottle having a bottle neck in which is located the bottle neck liner such that liquid cannot flow between the bottle neck liner and the bottle neck, the bottle neck liner comprising a sleeve comprising an inward step located within the bottle neck, an aperture being defined inwardly of the inward step, wherein the sleeve is dimensioned such that when the syringe barrel is inserted into the sleeve the inward step prevents the syringe barrel from protruding past the step and liquid cannot flow between the sleeve and the barrel, but can leave the bottle only via the aperture and thence the syringe.
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→ 2. See next page

3. A liquid dispensing apparatus as claimed in claim 1 or 2, wherein the aperture is pre-formed and permanently open.
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2. A liquid dispensing apparatus as claimed in claim 1 or 2, wherein the bottle neck liner has a cylindrical body to engage sealingly inside the bottle neck, wherein the sleeve is spaced from the body, the sleeve, wherein the body and sleeve are connected together by a web of material only at one end of the body and of the sleeve; and wherein at the other end of the sleeve the inward step is located.
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4. A liquid dispensing apparatus as claimed in any preceding claim, wherein the sleeve comprises a resilient material.